

APR 11 2000  
O I P E  
U.S. Patent and Trademark Office

attach to #3

Page 1 of 7

FORM PTO-1449 US Dept. of Commerce Patent and Trademark Office			ATTORNEY DOCKET NO.	SERIAL NO.
			221-Div.	09/483,859
INFORMATION DISCLOSURE STATEMENT  (use several sheets if necessary)			APPLICANT	
			Gautam Bhandari and Thomas H. Baum	
			FILING DATE	GROUP
			January 17, 2000	TBA

U.S. PATENT DOCUMENTS							
EXAMINER INITIALS	PATENT NUMBER	ISSUE DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	2,839,421	6/58	Albisetti	106	287.17		
	AB 3,076,834	2/63	Norton	556	175-X		
	AC 5,204,314	4/93	Kirlin, et al.	505	001		
	AD 5,711,816	1/98	Kirlin, et al.	118	726		
	AE 3,437,516	4/1969	C. Tamborski	117	1072	APP 1-8	RECEIVED

FOREIGN PATENT DOCUMENTS							
	DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES	MAIL ROOM NO
	AF GB 976,573	1964 Nov. 25/1964	Britain				
	AG DE3447635A1	July 18, 1985	Germany			Abstract only	

OTHER DOCUMENTS (Including Author, Title, Journal-Date, Page Number, Etc.)							
	AH	Yu. E. Ovchinnikov, et al. "The Crystal Structures of the Titanium-Containing Organosilicon Compounds $(SiMe_3)_3$ and $(SiMe_3)_2GeTi(NMe_2)_3$ ," <i>Metalloorg. Khim. (Organometallic Chem. In USSR)</i> 1992, Vol.5, p. 564.					
	AI	Yu. E. Ovchinnikov Yu. T. Struchkov M. V. Ustinov, M.G. Voronkov, "Crystal and Molecular Structure of Organosilicon Derivatives of Titanium (IV) $(Me_3Si)_3SiTi(Net_2)_3$ and $CiTi[N(SiMe_3)_2]_3$ Izu. Akad. Nauk SSSR, Ser. Khim., 1993, p. 1473.	Nov month				
	AJ	M.T. Bohr, "Scaling of High Performance Interconnects", <i>Advanced Metallization and Interconnect Systems for ULSI Applications in 1996</i> , MRS Publishers, 1997, p.3.	Nov month				
	AK	M.B. Small, D. Pearson, "On-Chip Wiring for VLSI Status and Directions", <i>IBM J. Res. Dev.</i> , 1990, Vol. 34, pp. 858-867.				Nov month	
	AL	S. P. Muraka, R. J. Gutman, A. Kaloyerous and W. A. Lanford, "Advanced Multilayer Metallization Schemes with Copper as Interconnection Metal", <i>Thin Solid Films</i> , 1994, Vol. 236, pp. 257-266	Nov month				
	AM	K. Holloway, et al., "Tantalum as a Diffusion Barrier Between Copper and Silicon: Failure Mechanism and Effect of Nitrogen Additions," <i>J. Appl. Phys.</i> , 1992 Vol. 71, pp. 5433-5444	Nov month				
	AN	J.O. Olowolafe, C.J. Mogab, R.B. Gregory and M. Kottke, "Interdiffusions in Cu/Reactive-Ion-Sputtered TiN, Cu/Chemical-Vapor-Deposited TiN, Cu/TaN and TaN/Cu/TaN Thin-Film Structures: Low Temperature Diffusion Analyses", <i>J. Appl. Phys.</i> , 1992, Vol. 72, pp. 4099-4103.	Nov month				
	AO	E. Kolawa, "Tantalum-Based Diffusion Barriers in Si/Cu VLSI Metallizations", <i>J. Appl. Phys.</i> , 1991, Vol. 70, pp. 1369-1373	Nov month				
	AP	S.-Q. Wang, et al., "Step Coverage Comparison of Ti/TiN Deposited by Collimated and Uncollimated Physical Vapor Deposition Techniques", <i>J. Vac. Sci. Technol. B</i> , 1996, Vol. 14(3), pp. 1846-1852.					
	AQ	J.C. Fuggle et al, "Reactions of Niobium and Tantalum Pentafluorides with Trimethylsilyldiethylamine and with Trimethylsilyl Chloride", 1972, pp. 1766-1767	Nov month				

Continue on Page 2

EXAMINER <i>R. P. O. D. et al.</i>	DATE CONSIDERED <i>7/2/01</i>
------------------------------------	-------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

FORM PTO-1449 US Dept. of Commerce Patent and Trademark Office  <b>INFORMATION DISCLOSURE STATEMENT</b>  APR 11 2000 (use several sheets if necessary)				ATTORNEY DOCKET NO.		SERIAL NO.		
				221-Div.		09/483,859		
				APPLICANT				
				Gautam Bhandari and Thomas H. Baum				
				FILING DATE		GROUP		
				January 17, 2000		TBA 1762		
<b>U.S. PATENT DOCUMENTS</b>								
EXAMINER INITIALS	ART MARK	PATENT NUMBER	ISSUE DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
		AR 5,034,372	7/23/91	Matsuno et al.	505	1		
		AS 5,110,622	5/5/92	Hasegawa et al.	427	126.1		
		AT 5,120,703	6/9/92	Snyder et al.	505	1		
		AU 5,280,012	1/18/94	Kirlin et al.	505	1		
		AV 5,376,409	12/27/94	Kaloyerros et al.	427	248.1		
<b>FOREIGN PATENT DOCUMENTS</b>								
		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
							TC 1700 APR 13	
							RECEIVED	
<b>OTHER DOCUMENTS (Including Author, Title, Journal-Date, Page Number, Etc.)</b>								
	AW	K. Hieber, "Structural and Electrical Properties of Ta and Ta Nitrides Deposited by Chemical Vapor Deposition", <i>Thin Solid Films</i> , 1974, Vol. 24, pp. 157-164						no month
	AX	R. Fix, R. G. Gordon, D.M. Hoffman, "Chemical Vapor Deposition of Vanadium, Niobium and Tantalum Nitride Thin Films", <i>Chem. Mater.</i> , 1993, Vol. 5, pp. 614-619						no month
	AY	D.N. Williams et al, "Half-sandwich Imido Complexes of Niobium and Tantalum", <i>J. Chem. Soc Dalton Trans.</i> , 1992, pp. 739-751						no month
	AZ	J. Li, T. E. Seidel, J. W. Mayer, "Copper-Based Metallization in ULSI Structures", <i>MRS Bulletin</i> , 1994, Vol. XIX, No. 8, pp. 15-18.						no month
	BA	S.M. Rossangel, et al., "Thin, High Atomic Weight Refractory Film Deposition for Diffusion Barrier, Adhesion Layer, and Seed Layer Applications" <i>J. Vac. Sci. Technol. B</i> , Vol. 14, pp. 1819-1827						no date
	BB	D. Ugolini, S.P. Kowalczyk, F.R. McFeely, "Photoelectron Spectroscopy Studies of Chemical Vapor Deposition of Ta from a TaF <sub>6</sub> Precursor on Si and SiO <sub>2</sub> Substrates" <i>J. Appl. Phys.</i> , 1991, Vol. 70, p. 3899.						no month
	BC	S.J. McLain, et al., "Multiple Metal-Carbon Bonds. The Reaction of Niobium and Tantalum Neopentylidene Complexes with Simple Olefins: A Route to Metallocyclopentanes", <i>J. Amer. Chem. Soc.</i> , 1977, Vol. 99, p. 3519.						no month
	BD	R. R. Schrock, "Alkylidene Complexes of Niobium and Tantalum", <i>Acc. Chem. Res.</i> , 1979, Vol. 12, p. 98.						no month
	BE	R. R. Schrock, S.M. Rockledge, "Tantalum Complexes Containing Diimido Bridging Dinitrogen Ligands" <i>J. Amer. Chem. Soc.</i> , 1980, Vol. 102, pp. 7809-7811						no month
	BF	Yuan-Wei Chao et al, "Preparation and Properties of Amido Halide Complexes of Niobium and Tantalum and Reactions with Alkynes", <i>Polyhedron</i> , 1990, Vol. 9, No. 22, pp. 2709-2716.						no month
Continue on Page <u>3</u>								
EXAMINER <i>[Signature]</i>				DATE CONSIDERED <i>3/2/01</i>				
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.								

FORM PTO-1449 US Dept. of Commerce Patent and Trademark Office		ATTORNEY DOCKET NO.	SERIAL NO.
		221-Div.	09/483,859

FORM PTO-1449 US Dept. of Commerce Patent and Trademark Office			ATTORNEY DOCKET NO. 221-Div.		SERIAL NO. 09/483,859			
INFORMATION DISCLOSURE STATEMENT <i>O I P E</i> (use several sheets if necessary)			APPLICANT Gautam Bhandari and Thomas H. Baum					
			FILING DATE January 17, 2000		GROUP <i>TBA 1762</i>			
<b>U.S. PATENT DOCUMENTS</b>								
EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
<i>MARK</i>	BG	4,147,556	4/79	Donley	106	287.18		
	BH	4,281,037	7/81	Choung	427	407.3	<i>TC</i>	
	BI	5,412,129	5/2/95	DiCarolis	556	40	<i>7/94</i>	
	BJ	5,204,314	4/20/93	Kirlin et al.	505	1	<i>APR 13 2000</i>	
<i>APR</i>	BK	5,225,561	7/6/93	Kirlin et al.	546	256	<i>RECEIVER</i>	
<b>FOREIGN PATENT DOCUMENTS</b>							<i>DO</i>	
		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION ROOM YES	NO
<b>OTHER DOCUMENTS (Including Author, Title, Journal-Date, Page Number, Etc.)</b>								
<i>APR</i>	BL	John D. Prostasiewicz, "Synthesis and Structural Characterization of Low Valent Group V Phosphine Complexes", <i>Inorg. Chem.</i> , 1992, Vol. 31, pp. 4134-4142. <i>no month</i>						
	BM	D.C. Bradley et al, "Nuclear Magnetic Resonance Studies on Niobium and Tantalum Penta-alkoxides", <i>J. Chem. Soc. (A)</i> , 1968, pp.219-223 <i>no month</i>						
	BN	M.H. Tsai, S.C. Sun, C.P. Lee, H.T. Chiu, C.E. Tsai, S.H. Chuang, S.C. Wu, " Metal-Organic Chemical Vapor Deposition of Tantalum Nitride Barrier Layers for ULSI Applications", <i>Thin Solid Films</i> , 1995, Vol. 270, pp. 531-536. <i>no month</i>						
	BO	H.T. Chiu, W.P. Chang, "Effect of Hydrogen on Deposition of Tantalum Nitride Thin Films From Ethylimidotantalum Complex", <i>J. Mater. Sci. Lett.</i> , 1992, Vol. 11, pp. 570-572. <i>no month</i>						
	BP	K. Sugiyama, et al., "Low Temperature Deposition of Metal Nitrides by Thermal Decomposition of Organometallic Compounds", <i>J. Electrochem. Soc.</i> , 1975, Vol. 122, p. 1545. <i>no month</i>						
	BQ	M.G. Simmonds, W.L. Gladfelter, "Chemical Vapor Deposition of Aluminum", <i>The Chemistry of Metal CVD</i> , T.T. Kodas, M.J. Hampden-Smith, Eds., VCH, New York, 1994. <i>no month</i>						
	BR	T.D. Tilley, <i>The Chemistry of Silicon Compounds</i> . S. Patai, Z. Rapporport Eds., Wiley: New York, 1989, Vol. 2. P. 1415 <i>no month</i>						
	BS	Q. Jiang, P.J. Carroll, D. H. Berry, "Synthesis of Mono- and Bis(silyl) Complexes of Tantalum" <i>Organometallics</i> , 1991, Vol. 10, pp. 3648-3655 <i>no month</i>						
<i>APR</i>	BT	"Diffusion Barriers for GaAs and InP Devices", <i>NASA, Tech Briefs</i> , June 1997, p. 42.						
Continue on Page 4								
EXAMINER <i>John P. Donley</i>	DATE CONSIDERED <i>7/2/01</i>							
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.								

FORM PTO-1449 US Dept. of Commerce Patent and Trademark Office			ATTORNEY DOCKET NO. 221-Div.		SERIAL NO. 09/483,859		
INFORMATION DISCLOSURE STATEMENT <i>APR 11 2000</i> <i>Use several sheets if necessary</i>			APPLICANT Gautam Bhandari and Thomas H. Baum				
			FILING DATE January 17, 2000		GROUP TBA 1762		
U.S. PATENT DOCUMENTS							
EXAMINER <i>TR</i>	PATENT NUMBER	ISSUE DATE	NAME	CLASS	SUBCLASS	FILING DATE + APPROPRIATE	
BU	4,401,474	8/83	Donley	106	243	1762 PR	
BV	4,726,938	2/88	Rollat, et al.	423	DIG.14	1762 PR	
BW	4,898,842	2/90	David	501	12-X	1762 MAIL ROOM	
BX	4,908,065	3/90	Tanitsu et al.	106	287.19-X	1762 MAIL ROOM	
BY	5,165,960	11/24/92	Platts	427	166	1762 MAIL ROOM	
FOREIGN PATENT DOCUMENTS							
	DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES      NO	
OTHER DOCUMENTS (Including Author, Title, Journal-Date, Page Number, Etc.)							
BZ	"Adherent and Stable Metallization of CVD Diamond", <i>NASA Tech Briefs</i> , June 1997, pp. 63-64.						
CA	M.F. Lappert, et al, <i>Metal and Metalloid Amides</i> , John Wiley and Sons, pp. 470-543. <i>date no year</i>						
CB	R.P.M. Werner, A.H. Filbey, S.A. Manastyrsky, "Tetracarbonylcyclopentadienyl Compounds of the Group V Transition Metals", <i>Inorg. Chem.</i> , 1964, Vol. 3, pp. 298-300 <i>no month</i>						
CC	Z. Xue, L. Li, L. K. Hoyt, J.B. Diminnie, J.L. Pollitte, "Early Transition Metal Silyl Complexes Free from Anionic $\Pi$ -Ligands. A new Family of Alkyl, Alkylidene, and Alkylidyne Compounds", <i>J. Am. Chem. Soc.</i> , 1994, Vol. 116, pp. 2169-2170 <i>no month</i>						
CD	W.A. Nugent, R.L. Harlow, "Structure and Reactivity in the Group 5B t-Butylimido Complexes $(Me_2N)_2M=Nbu'$ ; X-Ray Crystal and Molecular Structure of N-t-Butylimidotris(dimethylamido)tantalum", <i>J.C.S. Chem. Comm.</i> , 1978, pp. 579-580. <i>no month</i>						
CE	A.A. Finn, L. Brandt, H.D. Kaez, R.F. Hicks, "Chemical Vapor Deposition of Platinum, Palladium and Nickel", <i>The Chemistry of Metal CVD</i> , T.T. Kodas, M.J. Hampden-Smith, Eds., VCH, New York, 1994. <i>no month</i>						
CF	Pradeep P. Phule, "Sol-gel Synthesis of Ferroelectric Lithium Tantalate Ceramics: FTIR Investigation of the Molecular Modification of Tantalum Ethoxide", <i>J. Mater. Res.</i> , 1993, Vol. 8, No. 2, pp. 334-338 <i>no month</i>						
CG	P.N. Kapoor et al, "Organic Compounds of Niobium and tantalum IV Reactions of Niobium and Tantalum Pentaethoxides with B-Diketones", <i>J. of the Less-Common Metals</i> , 1965, Vol. 8, pp. 339-346 <i>no month</i>						
CH	R.L. Deutsher, et al, "Eight Coordinate Tetrakis-Chelate Complexes of Niobium(IV) and Tantalum(V)", <i>Inorganica Chimica Acta</i> , 1970, pp. 645-650 <i>no month</i>						
Continue on Page 5							
EXAMINER <i>TH. B. Bauman</i>						DATE CONSIDERED <i>7/2/01</i>	
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.							

FORM PTO-1449 US Dept. of Commerce Patent and Trademark Office			ATTORNEY DOCKET NO. 221-Div.		SERIAL NO. 09/483,859	
INFORMATION DISCLOSURE STATEMENT <i>Use several sheets if necessary</i>			APPLICANT Gautam Bhandari and Thomas H. Baum			
			FILING DATE January 17, 2000		GROUP <i>TBA 1762</i>	
			U.S. PATENT DOCUMENTS			
EXAMINER <i>R. R. Schrock</i>	PATENT NUMBER CI 3,988,332	ISSUE DATE <i>1972 10 19 72</i>	NAME R. R. Schrock	CLASS <i>260</i>	SUBCLASS <i>429R</i>	FILING DATE IF APPROPRIATE <i>IC 1700</i>
	CJ 4,510,222	4/9/85	Okunaka et al.	430	5	APR 18 2000
	CK 4,529,427	7/16/85	French	65	3.12	<b>RECEIVED</b>
	CL 5,679,815	10/21/97	Kirlin et al.	556	42	<i>MAIL ROOM</i>
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
OTHER DOCUMENTS (Including Author, Title, Journal-Date, Page Number, Etc.)						
	CM	R.R. Schrock et al, "Multiple Metal Carbon Bonds. "Preparation and Characterization of Formation of the Tantalum and Niobium Neopentylidene Complexes, M (CH <sub>2</sub> CMe <sub>3</sub> ) <sub>3</sub> (CHCMe <sub>3</sub> )", J. Amer. Chem. Soc., 1978, Vol. 100:11, pp. 3359-3370. <i>norman</i>				
	CN	Mark M. Bonaszak Holl, "Ladder Structure of [(BuCH <sub>2</sub> ) <sub>2</sub> TaN]5·NH <sub>3</sub> ·2C <sub>7</sub> H <sub>8</sub> and Its relationship to Cubic TaN", J. Am. Chem. Soc., 1990, Vol.112, pp. 7989-7994. <i>norman</i>				
	CO	Malcolm H. Chisolm, et al, "Chloro(dimethylamido) Compounds of Tantalum(V): Preparations, Properties, and Structures of [Ta(NMe <sub>2</sub> ) <sub>3</sub> Cl <sub>2</sub> ], TaCl <sub>3</sub> (NMe <sub>2</sub> ) <sub>2</sub> (HNMe <sub>2</sub> ), Ta(NMe <sub>2</sub> ) <sub>3</sub> Cl <sub>2</sub> (HNMe <sub>2</sub> ), and [TaCl <sub>2</sub> (NMe <sub>2</sub> ) <sub>2</sub> (HNMe <sub>2</sub> )] <sub>2</sub> O" Inorganic Chemistry, 1981, Vol. 20, pp. 1859-1865. <i>norman</i>				
	CP	H.-K. Shin, et al., "MOCVD of Titanium Nitride from a New Precursor, Ti[N(CH <sub>3</sub> )C <sub>2</sub> H <sub>5</sub> ] <sub>4</sub> ", Chem. Mater., 1997, Vol. 9, pp. 76-80. <i>norman</i>				
	CQ	T. Kee, Coordination Chemistry, 1993, pp. 171-185. <i>norman</i>				
	CR	M. Stoltz, K. Heiber, "Universal Chemical Vapour Deposition System for Metallurgical Coatings", Thin Solid Films, 1983, Vol. 100, pp. 209-218. <i>norman</i>				
	CS	T. Don Tilley, "The Reactivity of Transition Metal-Silicon Compounds", Final Technical Report, Defense Technical Information Center, AD Number A200371, 1988 August-8. <i>norman</i>				
	CT	M.H. Tsai, S.C. Sun, C.P. Lee, H.T. Chiu, S.H. Chuang, "Metalorganic Chemical Vapor Deposition of Tungsten Nitride for Advanced Metallization", Appl. Phys. Lett., 1996, Vol. 68, pp. 1412-1414 <i>norman</i>				
Continue on Page 6						
EXAMINER <i>R. R. Schrock</i>				DATE CONSIDERED <i>7/2/01</i>		
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.						

FORM PTO-1449 US Dept. of Commerce Patent and Trademark Office		ATTORNEY DOCKET NO. 221-Div.	SERIAL NO. 09/483,859
INFORMATION DISCLOSURE STATEMENT (use several sheets if necessary)		APPLICANT Gautam Bhandari and Thomas H. Baum	
		FILING DATE January 17, 2000	GROUP TBA 1762

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		PATENT NUMBER	ISSUE DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
O	I	P	E				
APP 11 2000	J	C16					
PTENT & TRADEMARK OFFICE							

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION ROOM	YES	NO

## OTHER DOCUMENTS (Including Author, Title, Journal-Date, Page Number, Etc.)

<i>Raj</i>	CU	M.H. Tsai, S.C. Sun, H.T. Chiu, C.E. Tsai, S.H. Chuang, "Metalorganic Chemical Vapor Deposition of Tantalum Nitride by Tertbutylimidotris(diethylamido)tantalum for Advanced Metallization" <i>Appl. Phys. Lett.</i> , 1995, Vol.67, pp. 1128-1130. <i>no month</i>
	CV	S.C. Sun et al, "Diffusion Barrier Properties of CVD Tantalum-Nitride for Aluminum and Copper Interconnections", VMIC Conference, 1995 ISMIC, June 27-29, pp. 157-161.
	CW	H.T. Chiu, S. H. Chuang, "Tungsten Nitride Thin Films Prepared by MOCVD", <i>J. Mater. Res.</i> , 1993, Vol.8, pp. 1353-1360. <i>no month</i>
	CX	P. Catania, et al., "Low Resistivity Body-Centered Cubic Tantalum Thin Films as Diffusion Barriers Between Copper and Silicon", <i>J. Vac. Sci. Tech.</i> , A, 1992, A10 pp. 3318-3321 <i>no month</i>
	CY	E. Blanquet, et al., "Evaluation of LPCVD Me-Si-N (Me=Ta, Ti, W, Re) Diffusion Barriers for Cu Metallizations", <i>Microelectronic Engineering</i> , 1997, Vol. 37, pp. 189-195. <i>no month</i>
	CZ	Y.W. Chao, et al., "Preparation and Properties of Tantalum Imido Complexes and Their Reactions with Alkynes. Coordination Control through Multiple Metal-Ligand Bonding", <i>Inorg. Chem.</i> , 1989, Vol. 28, pp. 3860-3868. <i>no month</i>
	DA	M. M. Banaszak, et al., "Ammonolysis of Tantalum Alkyls: Formation of Cubic TaN and a Trimeric Nitride, [Cp*MeTaN] <sub>3</sub> ", <i>Inorg. Chem.</i> 1990, Vol. 29, pp. 1518-1526. <i>no month</i>
	DB	Zhang, J. et al., "Single Liquid Source Plasma-Enhanced Metalorganic Chemical Vapor Deposition of High Quality YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> Thin Films, " <i>Appl. Phys. Lett.</i> , 1992, Vol. 61, pp. 2884-2886. <i>no month</i>
<i>Raj</i>	DC	Van Buskirk, P.C. et al., "MOCVD Growth of BaTiO <sub>3</sub> in an 8" Single-Wafer CVD System," Proc. ISAF 92, Eighth Int'l Symp. Appl. Ferroelectrics, Agu. 31-Sept. 2, 1992. <i>no month</i>

Continue on Page 7

EXAMINER <i>Raj Rajgopal</i>	DATE CONSIDERED <i>7/2/01</i>
------------------------------	-------------------------------

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.

FORM PTO-1449 US Dept. of Commerce Patent and Trademark Office			ATTORNEY DOCKET NO. 221-Div.		SERIAL NO. 09/483,859		
INFORMATION DISCLOSURE STATEMENT (use several sheets if necessary)			APPLICANT Gautam Bhandari and Thomas H. Baum				
			FILING DATE January 17, 2000		GROUP TBA 1762		
			U.S. PATENT DOCUMENTS				
EXAMINER INITIAL <i>MRP</i>		PATENT NUMBER 3,288,829	ISSUE DATE 11/29/96 (64)	NAME Wilkinson	CLASS 260	SUBCLASS 429	FILING DATE IF APPROPRIATE
APR 11 2000 JC16							
RECEIVED APR 18 2000 TC 1700 MAIL ROOM							
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	PUBLICATION DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
OTHER DOCUMENTS (Including Author, Title, Journal-Date, Page Number, Etc.)							
	DD	Hiskes, R. et al., "Single Source Metalorganic Chemical Vapor Deposition of Low Microwave Surface Resistance $YBa_2Cu_3O_7$ ," Appl. Phys. Lett. 1991, Vol. 59, pp. 606-607. <i>no month</i>					
	DE	Zhang et al., "Plasma Enhanced Metalorganic Chemical Vapor Deposition of Conductive Oxide Electrodes for Ferroelectric $BaTiO_3$ Capacitors." Mater. Res. Soc. Symp. Proc. Vol. 310, pp. 249-254 (1993). <i>no month</i>					
	DF	Zhang et al., "Metal Organic Chemical Vapor Deposition of $LaSrCoO$ Electrodes for Ferroelectric Capacitors," 6th ISAF Mtg., March, 1994					
	DG	T. Suzuki, "Comparison of CVD-TiN, PECVD WN, and CVD W-Si-N as Upper Electrode Materials for $Ta_2O_5$ DRAM Capacitors", Advanced Metallization Conference, Sept 28 1997, San Diego.					
	DH	S.Q. Wang, "Barriers Against Copper Diffusion into Silicon and Drift Through Silicon Dioxide", MRS Bulletin, August 1994, pp. 30-40.					
	DI	D.C. Bradley, M.H. Chisholm, "Transition Metal Dialkylamides and Disilylamides", Accounts of Chemical Research, 1976, Vol. 9, pp.273-280. <i>no month</i>					
	DJ	S.-Q. Wang, et al., "Film Property Comparison of Ti/TiN Deposited by Collimated and Uncollimated Physical Vapor Deposition Techniques", J. Vac. Sci. Technol. B, 1996, Vol. 14(3), pp. 1837-1845 <i>no month</i>					
	DK	F.W. Ainger, et al., "Deposition of Ferroelectric Oxides by MOCVD.", Prog. Crystal Growth Charact., 1991, Vol. 22, pp. 183-187. <i>no month</i>					
	DL	Narula, et al., "Preparation and Characterization of Niobium(V) $\beta$ -Diketonates", Synth. React. Inorg. Met. Org. Chem., 1983, Vol. 13, pp. 1-19. <i>no month</i>					
	DM	Narula, et al., "Preparation and Characterization of Tantalum(V) $\beta$ -Diketonates", Synth. React. Inorg. Met. Org. Chem., 1983, Vol. 13, pp. 887-898. <i>no month</i>					
Continue on Page							
EXAMINER <i>MRP</i>				DATE CONSIDERED 7/2/01			
EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.							